#### Section 1

# Total Crashes, Injury Crashes and Fatal Crashes, 2001

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#### Utah Crashes 1971 - 2001

From 1971 to 2001, over 1.4 million crashes occurred in Utah. Approximately 450,000 of the crashes involved injuries and 8,600 involved fatalities. During this 30-year time span, the total crash rates, injury crash rates, and fatal crash rates have all decreased significantly (Table 1.01).

In 2001, the total crash rate per 100 million vehicle miles traveled in Utah was 225; a 5% decrease from the 2000 rate. The injury crash rate decreased by 5% from the 2000 rate. The decrease was even more substantial for fatal crash rates in 2001 with a 20% decline from the 2000 rate.

Several factors may account for these changes. One may be the changes in the crash reporting criteria. Most notably, 1997 was the first year crashes occurring on private property were excluded. This change in the reporting system could account for the decrease in total crashes and injury crashes from the previous years. It would not impact the reporting of fatal crashes because all fatal crashes are reported regardless of whether they occur on private property or not. Another factor may be improvements in the medical system. As more lives are saved, the number of fatalities may be reduced, but the number of injuries reported may increase. Other factors that impact the decrease in the number of crashes, as well as the severity of crash injuries include: increased seatbelt use; improvements in the design of the roadways and vehicles; legislation including lower speed limits, impaired driving laws, and graduated driver licensing laws.

It is important to note that when doing comparisons between years, rates should be used rather than the crude number of events. Rates provide a more accurate picture of trends over time. The rates used in this report are based on the annual vehicle miles traveled. The Utah Department of Transportation supplies the number of vehicle miles traveled each year.

Note: All data in section 1 are based on crashes, not person statistics. Person data are reported in section 2.

Table 1.01 Total Crashes, Injury Crashes and Fatal Crashes, Utah 1971-2001

	Million						
	Vehicle				T. 4.1.C 1	T	E ( ) C
	Miles	TD: 4:1	T. •	T-4-1		Injury Crash	Fatal Crash
<b>X</b> 7	Traveled	Total	Injury	Fatal	Rate per	Rate Per	Rate per 100
Year	(MVMT)	Crashes	Crashes	Crashes		174.2	
1971	6,544	39,108	11,399	280	597.6	174.2	4.3
1972	6,969	39,856	11,630	312	571.9	166.9	4.5
1973	7,274	38,234	11,710	304	525.6	161.0	4.2
1974	7,457	31,401	10,560	204	421.1	141.6	2.7
1975	7,942	36,426	11,441	245	458.7	144.1	3.1
1976	8,420	34,345	11,685	225	407.9	138.8	2.7
1977	9,054	38,524	12,652	310	425.5	139.7	3.4
1978	9,826	42,684	13,423	315	434.4	136.6	3.2
1979	9,811	40,468	13,449	287	412.5	137.1	2.9
1980	10,645	33,582	11,701	292	315.5	109.9	2.7
1981	10,733	35,989	11,824	321	335.3	110.2	3.0
1982	10,947	38,192	11,504	263	348.9	105.1	2.4
1983	11,228	40,989	12,317	253	365.1	109.7	2.3
1984	11,642	47,489	13,477	274	407.9	115.8	2.4
1985	12,035	47,871	13,917	270	397.8	115.6	2.2
1986	12,253	46,690	13,988	276	381.0	114.2	2.3
1987	12,679	47,256	13,599	271	372.7	107.3	2.1
1988	13,263	49,249	13,377	258	371.3	100.9	1.9
1989	13,915	51,320	13,941	269	368.8	100.2	1.9
1990	14,646	52,691	14,632	236	359.8	99.9	1.6
1991	15,390	47,435	13,763	229	308.2	89.4	1.5
1992	16,263	50,660	15,665	235	311.5	96.3	1.4
1993	17,055	55,704	17,088	259	326.6	100.2	1.5
1994	18,080	59,272	18,726	303	327.8	103.6	1.7
1995	18,786	57,644	19,828	284	306.8	105.5	1.5
1996	19,433	61,505	20,988	292	316.5	108.0	1.5
1997	20,408	54,952	21,131	309	269.3	103.5	1.5
1998	21,237	54,072	19,427	308	254.6	91.5	1.5
1999	21,867	52,802	19,513	318	241.5	89.2	1.5
2000	22,517	53,151	19,564	318	236.0	86.9	1.4
2001	23,399	52,704	19,332	259	225.2	82.6	1.1
Total	404,427	1,414,727	448,641	8,596	349.8	110.9	2.1

## Injury and Fatal Crashes Trends 1971 - 2001

Figure 1.01 reflects the decreasing trend in injury crash rates per 100 million vehicle miles traveled (MVMT) from 1971 to 2001. The injury crash rates were highest in the early 1970s. A large decrease occurred in 1980, followed by a slight increase between 1990 to 1997.

Figure 1.01 Injury Crash Rates per Million Vehicle Miles Traveled, Utah 1971 - 2001

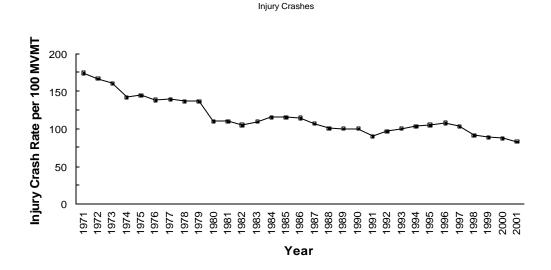
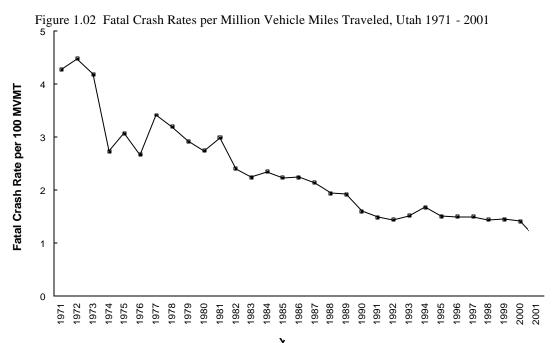


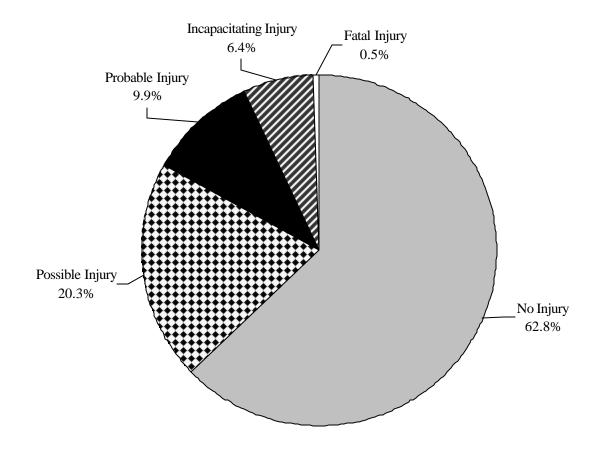
Figure 1.02 reflects the decreasing trend in fatal crash rates per 100 million vehicle miles traveled (MVMT) from 1971 to 2001. The fatal crash rates have markedly decreased from 1972 (4.5 per 100 MVMT) to 2001 (1.1 per 100 MVMT). The biggest decrease in fatal crash rates occurred in 1973, the same year the speed limit was lowered to 55 MPH.



# Crash Severity

Figure 1.03 shows the breakdown of crash severity as recorded by the police. The majority (62.8%) of crashes resulted in property damage only, 37.2% of crashes resulted in some level of injury, and fatal crashes represented less than 1% (0.5%) of crashes in Utah.

Figure 1.03 Severity of Crashes as Reported by Police, Utah 2001 (n=52,074)



# Crashes by County

Figure 1.04 depicts the number and rate per vehicle mile traveled (VMT) of injury crashes for each county in Utah. Weber, Salt Lake, and Cache had the highest injury crash rates per miles traveled. For more information on total crashes, injury crashes and fatal crashes by county see Table 1.02.

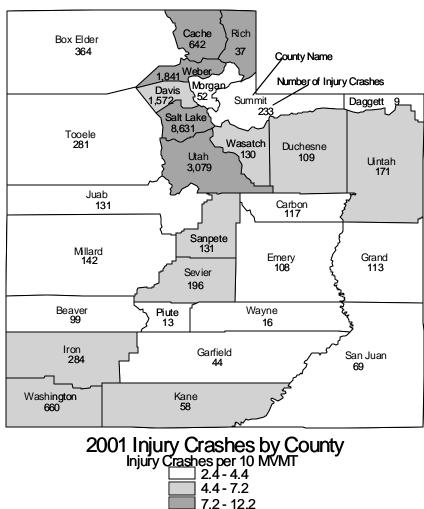


Figure 1.04 Injury Crashes by County, Utah 2001

Figure 1.05 depicts the number and rate per vehicle mile traveled (VMT) of fatal crashes for each county in Utah. Daggett, Duchense, and Grand had the highest fatal crash rates per miles traveled. For more information on total crashes, injury crashes and fatal crashes by county see Table 1.02.

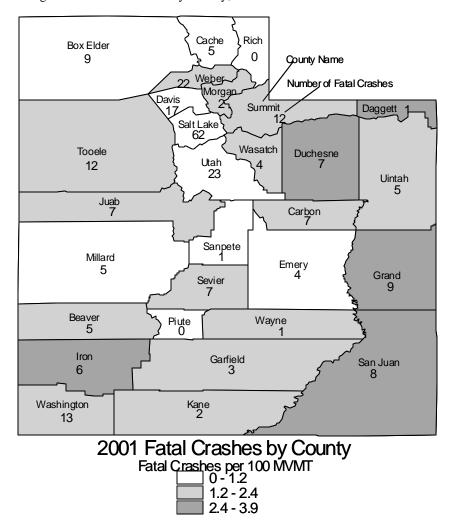


Figure 1.05 Fatal Crashes by County, Utah 2001

Table 1.02 shows the rates of total crashes, injury crashes and fatal crashes for each county. Two different rates are given in Table 1.02; one based on the miles traveled in the county and another on the population of the county. The rate of crashes per miles traveled provides a more accurate reflection of the motor vehicle crash risk. Cases where the crash rate per population is higher than the rate per miles traveled may indicate that the county has a large number of noncounty drivers.

Table 1.02 Total Crashes, Injury Crashes and Fatal Crashes by County, Utah 2001

		Total Cra	shes	I	njury Cra	ashes		Fatal Crashes		
		Rate	Rate		Rate	Rate		Rate	Rate	
		per 10	per 10,000		per 10	per 10,000		per 100	per 10,000	
County	#	MVMT	Population	#	<b>MVMT</b>	<b>Population</b>	#	MVMT	<b>Population</b>	
Beaver	288	12.7	408.8	99	4.4	140.5	5	2.2	7.1	
Box Elder	1,042	11.2	240.0	364	3.9	83.8	9	1.0	2.1	
Cache	2,052	25.7	216.9	642	8.0	67.9	5	0.6	0.5	
Carbon	382	11.3	165.5	117	3.5	50.7	7	2.1	3.0	
Daggett	36	14.1	415.7	9	3.5	103.9	1	3.9	11.5	
Davis	4,541	20.9	189.3	1,572	7.2	65.5	17	0.8	0.7	
Duchesne	386	19.3	266.9	109	5.4	75.4	7	3.5	4.8	
Emery	370	10.3	324.4	108	3.0	94.7	4	1.1	3.5	
Garfield	114	8.5	236.8	44	3.3	91.4	3	2.2	6.2	
Grand	278	9.8	240.5	113	4.0	97.8	9	3.2	7.8	
Iron	880	15.1	250.6	284	4.9	80.9	6	3.0	1.7	
Juab	337	9.0	405.1	131	3.5	157.5	7	1.9	8.4	
Kane	156	12.6	202.7	58	4.7	75.4	2	1.6	2.6	
Millard	406	9.6	310.7	142	3.4	108.7	5	1.2	3.8	
Morgan	168	14.0	237.7	52	4.3	73.6	2	1.7	2.8	
Piute	41	12.9	241.7	13	4.1	76.7	0	0.0	0.0	
Rich	93	21.6	491.5	37	8.6	195.6	0	0.0	0.0	
Salt Lake	22,155	28.7	249.2	8,631	11.2	97.1	62	0.8	0.7	
San Juan	292	10.1	212.8	69	2.4	50.3	8	2.8	5.8	
Sanpete	440	19.6	193.2	131	5.8	57.5	1	0.4	0.4	
Sevier	582	14.6	291.9	196	4.9	98.3	7	1.8	3.5	
Summit	919	14.2	315.5	233	3.6	80.0	12	1.9	4.1	
Tooele	859	11.4	238.8	281	3.7	78.1	12	1.6	3.3	
Uintah	509	16.8	202.2	171	5.7	67.9	5	1.7	2.0	
Utah	8,068	25.6	228.5	3,079	9.8	87.2	23	0.7	0.7	
Wasatch	540	20.6	363.3	130	5.0	87.5	4	1.5	2.7	
Washington	1,803	19.4	201.0	660	7.1	73.6	13	1.4	1.4	
Wayne	80	19.1	300.1	16	3.8	60.0	1	2.4	3.8	
Weber	4,887	32.4	251.6	1,841	12.2	94.8	22	1.5		
Statewide	52,704	22.5	237.8	19,332	8.3	87.2	259	1.1	1.5	

# Crashes by City

The crash rates per population for cities with over 200 crashes in 2001 are shown in Table 1.03. While Riverdale had the highest rate per population of total crashes and injury crashes, North Salt Lake had the highest rate per population of fatal crashes.

Table 1.03 Total Crash, Injury Crash and Fatal Crash Rates of Cities with More than 200 Crashes, Utah 2001

	Tota	l Crashes	Injury Crashes			tal Crashes
		Rate per		Rate per		Rate per
		100,000		100,000		100,000
City	#	Population	#	Population	#	Population
Salt Lake City	3,911	2165.6	2,221	1229.8	13	7.2
Provo	2,557	2437.6	967	921.8	6	5.7
Ogden City	2,265	3363.2	898	1333.4	8	11.9
Sandy	2,013	1972.0	702	687.7	2	2.0
Murray	1,662	4628.0	548	1526.0	5	13.9
Orem	1,559	1838.8	708	835.1	2	2.4
West Jordan	1,429	2222.8	495	770.0	3	4.7
Layton	1,263	2286.3	473	856.2	5	9.1
St. George	1,144	2186.2	401	766.3	5	9.6
Logan	1,101	2496.5	301	682.5	1	2.3
South Salt Lake	929	4801.0	295	1524.5	3	15.5
Draper	864	3054.4	288	1018.1	1	3.5
Taylorsville	826	1360.8	277	456.3	1	1.6
Midvale	630	2161.8	161	552.4	0	0.0
Bountiful	604	1485.6	202	496.9	1	2.5
Clearfield	579	2436.3	219	921.5	1	4.2
Roy City	544	1599.4	173	508.6	0	0.0
South Jordan	464	1635.4	148	521.6	1	3.5
Riverdale City	454	5921.5	179	2334.7	0	0.0
American Fork	423	1908.2	145	654.1	1	4.5
Springville	416	2297.8	129	712.5	1	5.5
Cedar	397	1709.2	103	443.4	1	4.3
South Ogden City	339	2253.7	112	744.6	0	0.0
Riverton	334	971.9	107	311.4	0	0.0
North Salt Lake	309	3637.9	86	1012.5	3	35.3
Spanish Fork	305	1720.3	119	671.2	0	0.0
Tooele	293	1638.8	77	430.7	0	0.0
Pleasant Grove	287	1343.1	114	533.5	0	0.0
Kaysville	276	1445.5	96	502.8	1	5.2
Lehi	257	1532.0	92	548.4	1	6.0
Farmington	250	2129.1	70	596.2	0	0.0
Park City	230	3247.7	51	720.1	0	0.0
Lindon	229	3273.3	83	1186.4		28.6

### Crash Times

Table 1.04 shows that total crashes and injury crashes were more likely to occur between 2 p.m. and 6 p.m., with a peak at 5 p.m. (evening rush hour). Fatal crashes followed a similar pattern with a peak at 5 p.m. (Figure 1.05).

Table 1.04 Hour of Total Crashes, Injury Crashes and Fatal Crashes, Utah 2001

	Total (	Crashes	Injury	Crashes	Fatal Crashes		
Hour	#	%	#	%	#	%	
12 a.m.	793	1.5%	307	1.6%	6	2.3%	
1 a.m.	675	1.3%	247	1.3%	7	2.7%	
2 a.m.	514	1.0%	189	1.0%	6	2.3%	
3 a.m.	354	0.7%	114	0.6%	6	2.3%	
4 a.m.	336	0.6%	114	0.6%	5	1.9%	
5 a.m.	656	1.2%	225	1.2%	7	2.7%	
6 a.m.	1,235	2.3%	414	2.1%	7	2.7%	
7 a.m.	2,398	4.5%	793	4.1%	9	3.5%	
8 a.m.	2,422	4.6%	801	4.1%	11	4.2%	
9 a.m.	1,990	3.8%	689	3.6%	12	4.6%	
10 a.m.	2,041	3.9%	724	3.7%	10	3.9%	
11 a.m.	2,487	4.7%	886	4.6%	7	2.7%	
12 p.m.	3,259	6.2%	1,221	6.3%	13	5.0%	
1 p.m.	2,948	5.6%	1,086	5.6%	6	2.3%	
2 p.m.	3,525	6.7%	1,360	7.0%	20	7.7%	
3 p.m.	4,201	8.0%	1,630	8.4%	12	4.6%	
4 p.m.	4,423	8.4%	1,657	8.6%	14	5.4%	
5 p.m.	4,989	9.5%	1,906	9.9%	26	10.0%	
6 p.m.	3,863	7.3%	1,486	7.7%	19	7.3%	
7 p.m.	2,668	5.1%	999	5.2%	14	5.4%	
8 p.m.	2,025	3.8%	749	3.9%	9	3.5%	
9 p.m.	2,125	4.0%	763	3.9%	14	5.4%	
10 p.m.	1,581	3.0%	556	2.9%	9	3.5%	
11 p.m.	1,196	2.3%	416	2.2%	10	3.9%	
Grand Total	52,704	100.0%	19,332	100.0%	259	100.0%	

Figure 1.06 Hour of Injury Crashes and Fatal Crashes, Utah 2001 (see Table 1.04 for values)

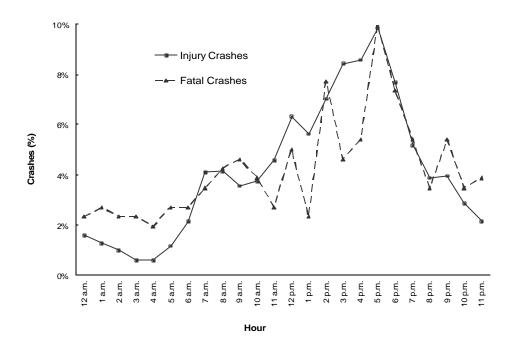


Table 1.05 shows that December had the highest rate of total crashes per day, while the months July and August had the highest rates of fatal crashes per day. In fact, 34% of all fatal crashes occurred between the months of June and August.

Table 1.05 Month of Total Crashes, Injury Crashes and Fatal Crashes, Utah 2001

	Total Crashes		Injury	Crashes	<b>Fatal Crashes</b>		
		Rate per	Rate per			Rate per	
<b>Crash Month</b>	#	Day	#	Day	#	Day	
January	4,364	140.8	1,464	47.2	20	0.6	
February	3,814	136.2	1,304	46.6	17	0.6	
March	3,903	125.9	1,465	47.3	12	0.4	
April	4,255	141.8	1,664	55.5	13	0.4	
May	4,360	140.6	1,690	54.5	24	0.8	
June	4,277	142.6	1,682	56.1	22	0.7	
July	4,158	134.1	1,663	53.6	35	1.1	
August	4,543	146.5	1,780	57.4	30	1.0	
September	4,088	136.3	1,655	55.2	20	0.6	
October	4,548	146.7	1,722	55.5	27	0.9	
November	4,952	165.1	1,648	54.9	21	0.7	
December	5,442	175.5	1,595	51.5	18	0.6	
Grand Total	52,704	144.4	19,332	53.0	259	0.7	

Figure 1.06 and Table 1.06 show that the highest percentage of total crashes and injury crashes occurred on Saturday. However, crashes occurring on Sunday were 1.5 times more likely to involve a fatality compared to crashes that occurred on other days of the week. The majority of Sunday fatal crashes occurred during the early morning hours.

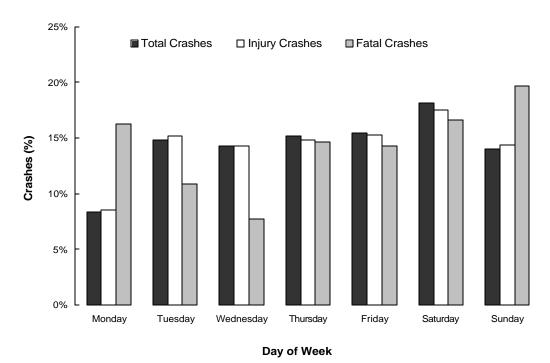


Figure 1.07 Day of Week for Total Crashes, Injury Crashes and Fatal Crashes, Utah 2001

Note: The above graph is based on percentages for the different crash categories. To read the above graph, look at one category across the days of the week. For example, look at only the white bars (i.e. injury crashes) from day to day. Do not compare the heights of the different crash categories for a specific day.

Table 1.06 Day of Week for Total Crashes, Injury Crashes and Fatal Crashes, Utah 2001

	Total Crashes		Injury	Crashes	Fatal Crashes		
Day of Week	#	%	#	%	#	%	
Monday	4,390	8.3%	1,652	8.5%	42	16.2%	
Tuesday	7,795	14.8%	2,933	15.2%	28	10.8%	
Wednesday	7,489	14.2%	2,761	14.3%	20	7.7%	
Thursday	7,969	15.1%	2,866	14.8%	38	14.7%	
Friday	8,104	15.4%	2,952	15.3%	37	14.3%	
Saturday	9,581	18.2%	3,383	17.5%	43	16.6%	
Sunday	7,376	14.0%	2,785	14.4%	51	19.7%	
Grand Total	52,704	100.0%	19,332	100.0%	259	100.0%	

# Holiday Crashes 1999 - 2001

Table 1.07 shows the number of fatal crashes that occurred on holidays for the past three years. The number of days included in a holiday varied by year. When a holiday falls on Monday, the holiday begins at noon the Friday before the holiday, and ends at midnight on the holiday. If a holiday does not fall on the weekend, the holiday begins at noon the day before the holiday, and ends on midnight the day after the holiday. Because of the differing lengths of holidays, the rate per day is provided and should be used to compare holidays by year. Holidays are a concern due to increased motor vehicle travel combined with other possible risk factors (e.g., alcohol and other drug impaired driving, fatigued driving). Memorial Day was the holiday with the highest rate of fatal crashes for 1999 and July 24th had the highest rate of fatal crashes in 2000 and 2001. The fatal crash rate per day for holidays is 1.1 which is higher than the rate per day of 0.7 for the whole year.

Table 1.07 Fatal Crashes by Holiday, Utah 1999 - 2001

	1999 Fatal Crashes		2000 F	atal Crashes	2001 Fatal Crashes		
Holiday	#	Rate per day	#	Rate per day	#	Rate per day	
New Years	0	0.0	0	0.0	4	1.0	
Memorial Day	7	1.8	2	0.5	5	1.3	
July 4th	5	1.7	4	1.0	2	0.7	
July 24th	4	1.0	5	1.3	8	2.7	
Labor Day	4	1.0	3	0.8	4	1.0	
Thanksgiving	3	0.8	2	0.4	6	1.2	
Christmas	1	0.3	1	0.3	3	1.0	
Total	24	0.9	17	0.6	32	1.1	

#### Crash Characteristics

Table 1.08 shows crashes involving two motor vehicles represented the majority of crashes (70.9%). Pedestrian-motor vehicle crashes represented 1.2% of all crashes, but accounted for 10.8% of fatal crashes resulting in nearly a 10-fold increased risk of a fatality. In addition when a vehicle ran off the roadway (to the right, to the left, and through the median), there was a 3-fold increased risk of a fatality.

Table 1.08 Types of Total Crashes, Injury Crashes and Fatal Crashes, Utah 2001

	Total Crashes		Injury	Crashes	Fata	<b>Fatal Crashes</b>	
Crash Type	#	%	#	%	#	%	
Two Motor Vehicles	37,363	70.9%	13,538	70.0%	91	35.1%	
Ran Off Roadway - To the Right	3,881	7.4%	1,616	8.4%	39	15.1%	
Motor Vehicle and Fixed Object	2,437	4.6%	714	3.7%	8	3.1%	
Ran Off Roadway - To the Left	2,265	4.3%	1,007	5.2%	39	15.1%	
Motor Vehicle and Wild Animal	2,237	4.2%	137	0.7%	1	0.4%	
Other Non-Collision	867	1.6%	247	1.3%	1	0.4%	
Motor Vehicle and Other Object	730	1.4%	123	0.6%	4	1.5%	
Motor Vehicle and Bicycle	656	1.2%	609	3.2%	5	1.9%	
Motor Vehicle and Pedestrian	655	1.2%	597	3.1%	28	10.8%	
Ran Off Roadway Through Median	640	1.2%	296	1.5%	29	11.2%	
Overturned in Roadway	493	0.9%	341	1.8%	9	3.5%	
Motor Vehicle and Domestic Animal	451	0.9%	98	0.5%	2	0.8%	
Motor Vehicle and Train	29	0.1%	9	0.0%	3	1.2%	
Grand Total	52,704	100.0%	19,332	100.0%	259	100.0%	

Table 1.09 shows the majority of crashes (74%) occurred in urban areas. However, approximately half of fatal crashes (48.7%) occurred in rural areas. In fact, rural crashes were 3 times more likely to result in a fatality than other crashes.

Table 1.09 Urban / Rural Location of Total Crashes, Injury Crashes and Fatal Crashes, Utah 2001

	Total Crashes		Injury (	Crashes	<b>Fatal Crashes</b>	
Urban / Rural Location	#	%	#	%	#	%
Rural Area - Up to 5,000	13,794	26.0%	4,408	22.5%	155	48.7%
Small Urban - 5,000 to 49,999	2,554	4.8%	854	4.4%	8	2.5%
Moderate Urban - 50,000 to 199,999	1,323	2.5%	409	2.1%	2	0.6%
Large Urban - 200,000 or More	34,782	65.4%	13,595	69.5%	93	29.2%
Missing	698	1.3%	292	1.5%	60	18.9%
Grand Total	53,151	100.0%	19,558	100.0%	318	100.0%

Table 1.10 shows the leading collision types (excluding other) were a rear end (29.1%) and a broadside (21.9%). These were also the leading injury collision types. The leading fatal collision type was a single vehicle rollover (34.0%), followed by head-on (14.3%) and pedestrian/bicyclist crash (12.7%). Head-on collisions were 26 times more likely and single vehicle rollovers were 8 times more likely to result in a fatality than other collisions.

Table 1.10 Collision Description of Total Crashes, Injury Crashes and Fatal Crashes, Utah 2001

	Total Crashes		<b>Injury Crashes</b>		<b>Fatal Crashe</b>	
Collision Description	#	%	#	%	#	%
Other	16,784	31.8%	3,307	17.1%	38	14.7%
Rear End	15,358	29.1%	6,075	31.4%	12	4.6%
Broadside	11,519	21.9%	5,425	28.1%	31	12.0%
Side Swipe	3,511	6.7%	791	4.1%	19	7.3%
Single Vehicle Rollover	3,311	6.3%	2,136	11.0%	88	34.0%
Pedestrian/Bicyclist Crash	1,311	2.5%	1,206	6.2%	33	12.7%
Single Vehicle Fixed Object	508	1.0%	184	1.0%	1	0.4%
Head-on	373	0.7%	195	1.0%	37	14.3%
Single Vehicle Other	29	0.1%	13	0.1%	0	0.0%
Grand Total	52,704	100.0%	19,332	100.0%	259	100.0%

Table 1.11 shows the majority of vehicles involved in Utah crashes were passenger cars (54.7%). While motorcycles represented less than 1% of vehicles involved in crashes, they represented 4.6% of vehicles in fatal crashes. Crashes involving a motorcycle were 10 times more likely to be fatal than crashes involving other vehicles. Crashes involving a large/semi truck were 3 times more likely to be fatal than crashes involving other vehicles.

Table 1.11 Type of Vehicles Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2001

	<b>Total Crashes</b>		Injury (	Crashes	<b>Fatal Crashes</b>		
Vehicle Type	#	%	#	%	#	%	
Passenger Car	53,508	54.7%	20,843	56.5%	161	43.5%	
Pickup Truck / Vans	38,936	39.8%	13,992	37.9%	186	40.3%	
Large/Semi Truck	2,884	3.0%	824	2.2%	36	8.9%	
Other	1,518	1.6%	526	1.4%	5	46.2%	
Motorcycle	777	0.8%	664	1.8%	29	4.6%	
School Bus	134	0.1%	36	0.1%	2	0.0%	
Grand Total	97,757	100.0%	36,885	100.0%	419	100.0%	

# Crash Violations and Contributing Factors

Officers at the scene cited 52.2% of drivers involved in a crash for a traffic violation. Table 1.12 shows the leading violation for all crashes was "failure to yield right of way" (25.6%). The top violations in fatal crashes were "vehicular homicide" (18.2%) and "driving under the influence" (15.9%). Drivers cited for "driving under the influence" were 6 times more likely to be involved in a fatal crash than drivers cited for other violations.

Table 1.12 Violations for Total Crashes, Injury Crashes and Fatal Crashes, Utah 2001

	<b>Total Crashes</b>		Injury Crashes		Fatal Crashes	
Violations	#	%	#	%	#	%
Failure to Yield Right of Way	12,612	25.6%	5,712	28.6%	6	13.6%
Improper Lookout	10,802	22.0%	4,130	20.7%	2	4.5%
Speeding	5,364	10.9%	1,966	9.8%	6	13.6%
Following Too Close	5,256	10.7%	2,002	10.0%	0	0.0%
All Other Moving Violations	3,181	6.5%	1,150	5.8%	5	11.4%
Other Non-Moving Violations	2,850	5.8%	1,144	5.7%	2	4.5%
Failure to Stop at Red Light	1,642	3.3%	953	4.8%	0	0.0%
Driving Under the Influence	1,589	3.2%	875	4.4%	7	15.9%
Negligent Collision	1,441	2.9%	563	2.8%	0	0.0%
Improper Turn	1,156	2.3%	378	1.9%	0	0.0%
Improper Lane Change	664	1.3%	155	0.8%	0	0.0%
Failure to Stop at Stop Sign	552	1.1%	302	1.5%	0	0.0%
Reckless Driving	474	1.0%	202	1.0%	4	9.1%
Improper Backing	415	0.8%	38	0.2%	0	0.0%
Hit and Run	393	0.8%	112	0.6%	0	0.0%
Improper Passing	339	0.7%	96	0.5%	1	2.3%
Wrong Side of Road	255	0.5%	126	0.6%	3	6.8%
Improper Start or Stop	198	0.4%	58	0.3%	0	0.0%
Vehicular Homicide	9	0.0%	0	0.0%	8	18.2%
Wrong Way on One Way Street	6	0.0%	1	0.0%	0	0.0%
Grand Total	49,198	100.0%	19,963	100.0%	44	100.0%

The factors contributing to crashes in 2001 are listed in Table 1.13. These factors were coded for each vehicle involved in the crash by the police officer at the scene of the crash. The officer may record no contributing factor or up to two different contributing factors. The leading contributing factor recorded for total crashes and injury crashes was "improper lookout" (14.2 % and 13.8%), while "speed too fast" (15.0%) was the leading contributing factor recorded for fatal crashes. If "driving under the influence," "had been drinking," and "under the influence of drugs" were combined it would be the third leading contributing factor for fatal crashes at 8.1%.

Table 1.13 Contributing Factors of Total Crashes, Injury Crashes and Fatal Crashes, Utah 2001

	Total Crashes		Injury Crashes		Fatal Crashes	
Charles Albert English						
Contributing Factors	15.066	14.20/	# 5.021	12.00/	#	7.40/
Improper Lookout	15,966	14.2%	5,921	13.8%	41	7.4%
Failed to Yield the Right of Way	9,525	8.4%	4,123	9.6%	22	4.0%
Speed Too Fast	8,266	7.3%	3,067	7.1%	83	15.0%
Following Too Closely	8,093	7.2%	3,077	7.2%	5	0.9%
Other Improper Driving	5,933	5.3%	2,303	5.4%	46	8.3%
Hit and Run	2,557	2.3%	669	1.6%	2	0.4%
Improper Turn	2,245	2.0%	686	1.6%	9	1.6%
Disregarded Traffic Signal	2,093	1.9%	1,181	2.7%	9	1.6%
Driving Under the Influence	1,459	1.3%	794	1.8%	23	4.2%
Non-Contact Vehicle Involved	1,257	1.1%	395	0.9%	7	1.3%
Improper Overtaking	1,098	1.0%	293	0.7%	9	1.6%
Drove Left of Center	1,024	0.9%	443	1.0%	38	6.9%
Asleep	890	0.8%	476	1.1%	23	4.2%
Improper Backing	820	0.7%	63	0.1%	0	0.0%
Passed Stop Sign	668	0.6%	348	0.8%	3	0.5%
Fatigued	472	0.4%	244	0.6%	7	1.3%
Had Been Drinking	465	0.4%	241	0.6%	18	3.2%
Other Defective Condition	425	0.4%	112	0.3%	4	0.7%
Tires Defective	310	0.3%	103	0.2%	4	0.7%
Cargo Loss or Shift	292	0.3%	55	0.1%	0	0.0%
Improper Parking	289	0.3%	63	0.1%	1	0.2%
Brakes Defective	270	0.2%	107	0.2%	0	0.0%
III	229	0.2%	154	0.4%	1	0.2%
Non-collision Fire	184	0.2%	11	0.0%	0	0.0%
Vehicle Rolling in Traffic Lane	166	0.1%	46	0.1%	1	0.2%
Down Hill Runaway	153	0.1%	25	0.1%	0	0.0%
Jackknife	146	0.1%	38	0.1%	1	0.2%
Failed to Signal	146	0.1%	36	0.1%	0	0.2%
Under the Influence of Drugs	143	0.1%	65	0.1%	4	0.7%
Wrong Side of Road	130	0.1%	56	0.2%	7	1.3%
Separation of Units				0.1%		0.4%
Towed Vehicle	122	0.1%	20 26		2 2	0.4%
		0.1%		0.1%		
Windshield Not Clear	109	0.1%	49	0.1%	1	0.2%
Stolen	100	0.1%	41	0.1%	0	0.0%
Other Lights or Reflecting/Defective	74	0.1%	24	0.1%	4	0.7%
Headlights Insufficient or Out	71	0.1%	35	0.1%	4	0.7%
Steering Mechanism Defective	52	0.0%	19	0.0%	0	0.0%
Explosion or Fire	39	0.0%	2	0.0%	2	0.4%
Headlights Glaring	38	0.0%	13	0.0%	0	0.0%
Eyesight Defective Uncorrected	37	0.0%	21	0.0%	0	0.0%
Wrong Way on One Way Street	25	0.0%	8	0.0%	3	0.5%
Collision Fire	22	0.0%	8	0.0%	2	0.4%
Immersion	13	0.0%	3	0.0%	1	0.2%
Grand Total	112,724	100.0%	43,019	100.0%	554	100.0%

#### **Drivers Involved in Crashes**

Figure 1.08 shows the age of drivers involved in crashes for 2001. The age distribution of drivers involved in total crashes and injury crashes were similar; drivers between the age of 15 to 24 years represented the highest percentage of drivers involved in these crashes. Drivers between the age of 20 to 24 represented the largest percentage of drivers involved in fatal crashes. For information regarding crash rate per license driver, see Figure 1.09.

21%
18%
18%
14%
19
11%
7%
110
15 - 19 20 - 24 25 - 29 30 - 34 35 - 39 40 - 44 45 - 49 50 - 54 55 - 59 60 - 64 65 - 69 70 - 74 75 - 79 80 - 84 85 + Driver Age (years)

Figure 1.08 Age of Drivers Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2001

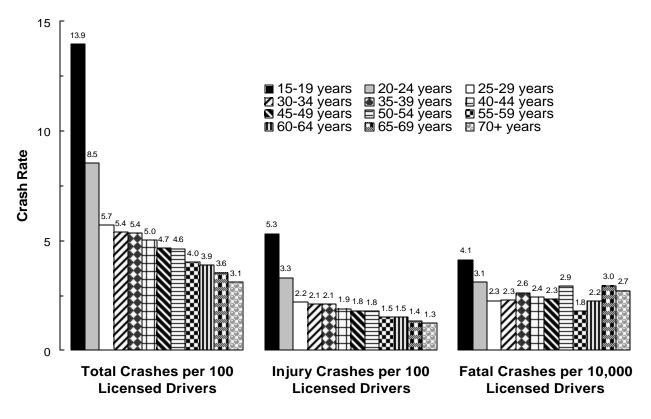
Note: The above graph is based on percentages for the different crash categories. To read the above graph, look at one category across the age groups. For example, look at only the white bars (i.e. drivers in injury crashes) from age group to age group. Do not compare the heights of the different crash categories for a specific age group.

Table 1.14 Age of Drivers Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2001

	Total Crashes		Injury Crashes		Fatal Crashes	
Driver's Age	#	%	#	%	#	%
<15	118	0.1%	63	0.2%	4	1.0%
15 - 19	17,820	18.9%	6,796	18.8%	53	12.9%
20 - 24	17,801	18.9%	6,931	19.2%	65	15.9%
25 - 29	10,816	11.5%	4,190	11.6%	43	10.5%
30 - 34	8,652	9.2%	3,375	9.3%	37	9.0%
35 - 39	7,575	8.0%	2,950	8.2%	37	9.0%
40 - 44	7,225	7.7%	2,758	7.6%	35	8.5%
45 - 49	5,995	6.4%	2,322	6.4%	30	7.3%
50 - 54	4,880	5.2%	1,885	5.2%	31	7.6%
55 - 59	3,168	3.4%	1,186	3.3%	14	3.4%
60 - 64	2,271	2.4%	891	2.5%	13	3.2%
65 - 69	1,675	1.8%	637	1.8%	14	3.4%
70 - 74	1,370	1.5%	521	1.4%	15	3.7%
75 - 79	1,111	1.2%	446	1.2%	9	2.2%
80 - 84	699	0.7%	292	0.8%	5	1.2%
85 +	349	0.4%	160	0.4%	2	0.5%
Missing	2,784	3.0%	774	2.1%	3	0.7%
Grand Total	94,309	100.0%	36,177	100.0%	410	100.0%

Similar trends in the age of drivers involved in crashes are illustrated in Figure 1.09 which shows the crash rate per licensed drivers. Drivers aged 15 to 19 years experienced the highest total crash, injury crash and fatal crash rates. Drivers aged 20 to 24 years had the second highest total crash, injury crash, and fatal crash rate.





<sup>\*</sup>The number of licensed drivers was provided by the Utah Driver License Division.

Table 1.15 shows males represented 57.8% of all drivers involved in a crash, and 71.9% of drivers involved in fatal crashes. Females accounted for 40.1% of drivers involved in a crash, but they represented a slightly higher percentage of drivers in injury crashes at 43.5%.

Table 1.15 Gender of Drivers Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2001

	<b>Total Crashes</b>		Injury (	Crashes	<b>Fatal Crashes</b>	
<b>Driver's Gender</b>	#	%	#	%	#	%
Female	37,791	40.1%	15,739	43.5%	112	27.4%
Male	54,497	57.8%	19,960	55.2%	296	71.9%
Missing	2,021	2.1%	478	1.3%	2	0.6%
Grand Total	94,309	100.0%	36,177	100.0%	410	100.0%

## Out of State Drivers Involved in Utah Crashes

Table 1.16 shows the state of licensure for drivers involved in Utah crashes. While out-of-state licensed drivers accounted for 8.3% of drivers involved in crashes, they represented 17.8% of drivers involved in fatal crashes. This may be due in part to fatigued driving on out-of-state trips. There were several counties that had a disproportional amount of out-of-state drivers (Table 1.17). Most notably, Kane (50.7%), Grand (44.7%), Garfield (39.9%), and Daggett (38.5%) had a high proportion of out-of-state licensed drivers involved in crashes. These drivers may place an extra burden on the residents and medical services in these counties.

Table 1.16 State of Licensure for Drivers Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2001

Drivers	Total Crashes		Injury	Crashes	<b>Fatal Crashes</b>		
License State	#	%	#	%	#	%	
Out of State	8,273	8.3%	3,125	8.3%	87	17.8%	
Utah	82,758	83.3%	32,072	85.6%	312	63.9%	
Missing	8,276	8.3%	2,255	6.0%	89	18.2%	
Grand Total	99,307	100.0%	37,452	100.0%	488	100.0%	

Table 1.17 State of Licensure for Drivers by County, Utah 2001

		Out of State			
	Total	Driv	vers		
County	Drivers	#	%		
Beaver	354	122	34.5%		
Box Elder	1,431	242	16.9%		
Cache	3,693	431	11.7%		
Carbon	566	62	11.0%		
Daggett	39	15	38.5%		
Davis	8,487	550	6.5%		
Duchesne	490	33	6.7%		
Emery	459	173	37.7%		
Garfield	148	59	39.9%		
Grand	365	163	44.7%		
Iron	1,326	281	21.2%		
Juab	422	74	17.5%		
Kane	201	102	50.7%		
Millard	504	138	27.4%		
Morgan	216	31	14.4%		
Piute	53	9	17.0%		
Rich	110	19	17.3%		
Salt Lake	41,860	2,210	5.3%		
San Juan	357	130	36.4%		
Sanpete	631	25	4.0%		
Sevier	742	235	31.7%		
Summit	1,392	326	23.4%		
Tooele	1,289	139	10.8%		
Uintah	750	64	8.5%		
Utah	15,060	1,583	10.5%		
Wasatch	782	74	9.5%		
Washington	3,228	419	13.0%		
Wayne	89	21	23.6%		
Weber	9,265	543	5.9%		
Grand Total	94,309	8,273	8.8%		